

Department of Environmental Quality

Division of Air Quality

Permit Application

Date of Application: March 6, 2003

1. Company Name: Solvay Minerals Inc.
2. Mailing Address: P.O. Box 1167 (#1 Westvaco Road)
Green River, Sweetwater County, Wyoming 82935
(307) 875-6500
3. Plant Location: NE ¼ of Section 31, Township 18 North, Range 109 West
Sweetwater County, Wyoming (307) 875-6500
4. Name of Owner or company official to contact regarding air pollution matters:
Ronald O. Hughes Resident Manager
P.O. Box 1167 Green River, Wyoming 82935
(307) 875-6500
5. General nature of business: Trona mine and facilities to produce soda ash and other sodium-based products
6. Permit application is made for:

☒ New construction ☒ Modification

☐ Relocation ☐ Operation
7. Type of equipment to be constructed, modified, or relocated. (Please list each major piece of equipment separately.)

Calcliner combustion system (modified)
Baghouse (constructed)
8. If application is being made for operation of an existing source in a new location, list previous location and new location: N/A

Previous location: _____

New location:

9. If application is being made for a crushing unit, is there: **No open crushing**

Primary crushing	Control equipment
Secondary crushing	Control equipment
Tertiary crushing	Control equipment
Recrushing & Screening	Control equipment
Conveying	Control equipment
Drying	Control equipment
Other	Control equipment

Proposed dates of operation (month/year) **beginning July 2004**

10. Materials used in unit or process (include solid fuels):

Type of Material	Process Weight Average (lb/hr)	Process Weight Maximum (lb/hr)	Quantity/Year (tons/year)
Trona ore (AQD #17)	640,000	640,000	2.80 MM
Subbituminous coal (AQD #17)	39,409	39,409	172.6 M
Subbituminous coal (AQD #100)	39,409	400,000	172.6 M

11. Air contaminants emitted:

Emission Point	Pollutant	lb/hr	ton/yr	Basis of Data
AQD #17	PM ₁₀	41.1	180	Vendor Guarantee (0.02 gr/dscf)
	NO _x	180	788	Vendor Guarantee 0.45 lb/MMBtu
	SO ₂	0	0	Testing
	CO	1263.2	5533	Estimate
	VOC	619.6	2714	Estimate
AQD #100	PM ₁₀	0.2	0.9	Vendor Guarantee (0.01 gr/dscf)

12. Air contaminant control equipment:

Emission Point	Type	Pollutant Removed	Efficiency
AQD #17	ESP	PM ₁₀	> 99 %
	FGR	NO _x	≈43 %
AQD #100	Baghouse	PM ₁₀	> 99 %

13. Type of combustion unit: (check if applicable) : N/A

A. Coal X

1. Pulverized _____:

General _____; Dry Bottom _____; Wet Bottom _____; With Flyash Reinjection _____;
Without Flyash Reinjection _____; Other _____

2. Spreader Stoker X:

With Flyash Reinjection _____; Without Flyash Reinjection _____; Cyclone _____;
Hand-Fired _____; Other _____

B. Fuel Oil _____

Horizontally Fired _____; Tangentially Fired _____;

C. Natural Gas _____

D. If other, please specify _____

Hourly fuel consumption (estimate for new equipment)

Size of combustion unit Total 400 MM (2 units @ 200 MM) BTU heat input/hour

14. Operating Schedule: 24 hours/day; 7 days/week; 52 weeks/year.

Peak production season (if any): None

15. Fuel analysis: N/A

	A. Coal	B. Fuel Oil	C. Natural Gas
% sulfur	0.5		
% ash	6.5		
BTU Value (btu/lb)	10,250		

16. Products of process or units:

Products	Quantity/Year
Soda Ash	1.75 MM TPY

17. Emissions to the atmosphere (each point of emission should be listed separately and numbered so that it can be located on the flow sheet):

Emission Point	Stack Height (ft)	Stack Diameter (ft)	Gas Discharged DSCFM (ACFM)	Exit Temp (°F)	Gas Velocity (ft/s)
AQD #17	180.5	12	240,000 (650,000)	400	96
AQD #100	126	1	2,366 (3,000)	68	64

18. Does the input material or product from this process or unit contain finely divided materials which could become airborne?

 X Yes No

Is this material stored in piles or in some other way as to make possible the creation of dust problems?

 Yes X No

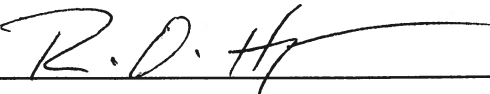
List storage piles (if any): N/A

Type of Material	Particle Size (Diameter or Screen Size)	Pile Size (Average Tons on Pile)	Pile Wetted (Yes or No)	Pile Covered (Yes or No)

19. Using a flow diagram:
 - (1) Illustrate input of raw materials.
 - (2) Label production processes, process fuel combustion, process equipment, and air pollution control equipment.
 - (3) Illustrate locations of air contaminant release so that emission points under items 11, 12 and 17 can be identified. For refineries, show normal pressure relief and venting systems. Attach extra pages as needed. Attach extra pages as needed.
20. A site map should be included indicating the layout of facility at the site. All buildings, pieces of equipment, roads, pits, rivers and other such items should be shown on the layout.
21. A location drawing should be included indicating location of the facility with respect to prominent highways, cities, towns, or other facilities (include UTM coordinates).

Certification

"I certify to the accuracy of the plans, specifications, and supplementary data submitted with this application. It is my opinion that any new equipment installed in accordance with these submitted plans and operated in accordance with the manufacturer's recommendations will meet emission limitations specified in the Wyoming Air Quality Standards and Regulations."

Signature 

Typed Name Ronald O. Hughes

Title Resident Manager

Company Solvay Minerals, Inc.

Mailing Address P.O. Box 1167, Green River, Wyoming 82935

Telephone (307) 875-6500

P.E. Registration (if applicable) N/A

State where registered _____